DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CRESCENT LAKE		Lake Area (ha):	60.06
Town: WOLFEBORG)	Maximum depth (m):	6.4
County: Carroll		Mean depth (m):	3.0
River Basin: Merrimacl	Κ	Volume (m³):	3539500
Latitude: 43°35'06'		Relative depth:	0.5
Longitude: 71°11'42'	' W	Shore configuration:	1.58
Elevation (ft):	534	Areal water load (m/yr): 35.62
Shore length (m):	6100	Flushing rate (yr ⁻¹):	11.90
Watershed area (ha):	9505.3	P retention coeff.:	0.41
% watershed ponded:	13.2	Lake type: natur	al w/dam

2002
25%
ELLA 20%
JS 10%
.59
/A 41%
15%
2%
red
9
3

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

CHEMICAL:	Lake: CRESCENT LAKE Town: WOLFEBORO				
	10 March 2003		16 July 2002		
DEPTH (m)	2.0	4.0	2.0		4.0
pH (units)	6.5	6.3	6.6		6.7
A.N.C. (Alkalinity)	6.5	7.2	4.4		6.0
NITRATE NITROGEN	< 0.05	0.06	< 0.05	<	0.05
TOTAL KJELDAHL NITROGEN	0.40	0.30	0.30	<	0.25
TOTAL PHOSPHORUS	0.008	0.006	0.009		0.019
CONDUCTIVITY (µmhos/cm)	59.9	69.7	53.8		53.4
APPARENT COLOR (cpu)	7	7	6		7
MAGNESIUM			0.50	1	
CALCIUM			3.2		-
SODIUM			5.2		
POTASSIUM			0.49		
CHLORIDE	8	10	7		7 .
SULFATE	4	5	4		4
TN : TP	50	60	33		
CALCITE SATURATION INDEX			3.6		

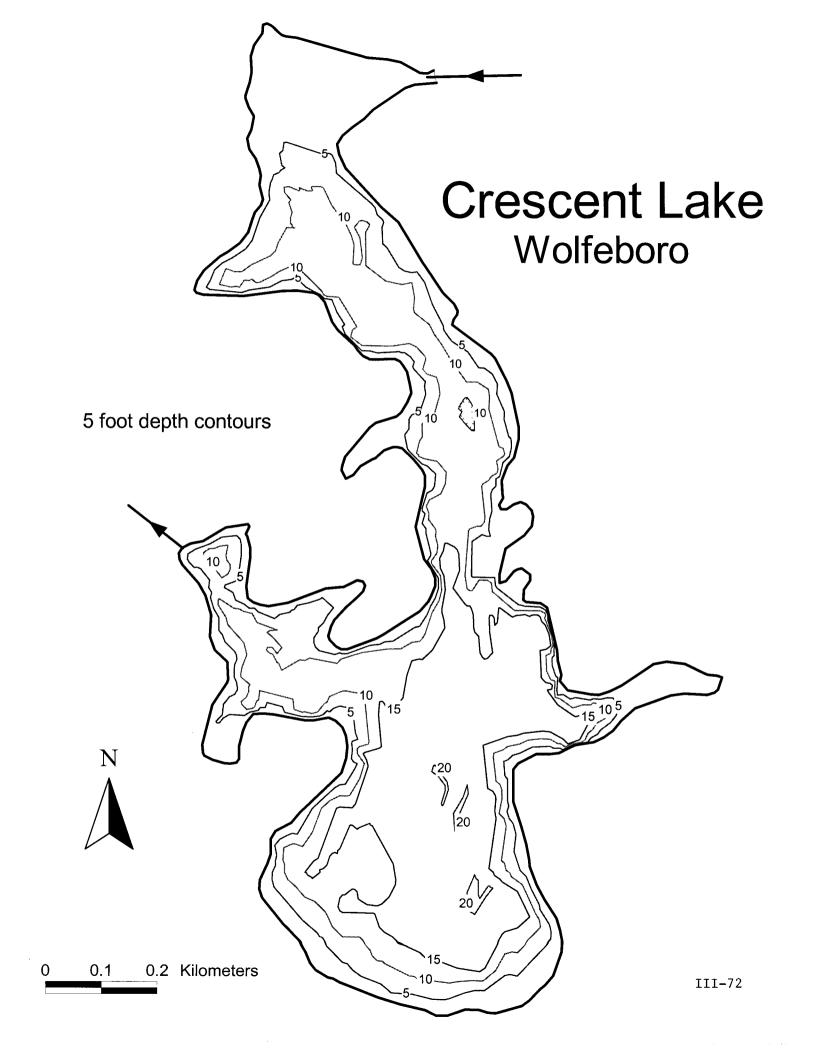
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2002

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	1	0	3	Oligo.

COMMENTS:

- 1. Previously surveyed in 1984. No change in trophic class between the two years.
- 2. This is a clear water, oligotrophic lake but does contain the nuisance exotic species of milfoil. Exotic milfoil first appeared at Mast Landing in 1980 and was treated with the herbicide 2,4-D in 1981. Its return growth was managed by hand-pulling and screening for many years after the initial treatment, but was subsequently treated with the herbicide diquat in 1991, 1995, 1999, and 2003.



FIELD DATA SHEET

LAKE: CRESCENT LAKE

DATE: 07/16/2002

TOWN: WOLFEBORO

WEATHER: Sunny, warm & breezy

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	24.7	8.7	104 %
1.0	24.7	8.2	99 %
2.0	24.7	7.8	94 %
3.0	24.5	8.3	100 %
4.0	23.4	9.4	110 %
5.0	21.0	12.1	136 %
5.5	19.6	13.3	145 %
	·		
•			

SECCHI DISK (m):

4.9

COMMENTS:

BOTTOM DEPTH (m):

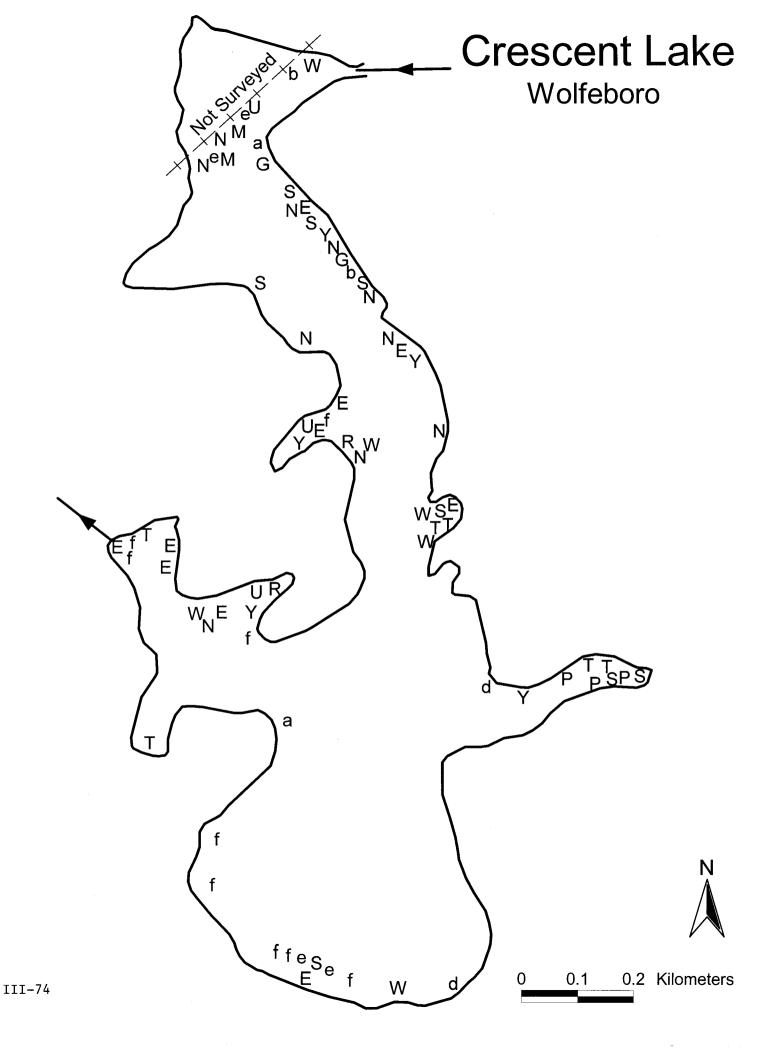
6.0

TIME: 1230

Elevated and super-saturated D.O. values at the bottom; this is unusual and may be due to bottom plant growth photosynthesizing and producing

oxygen.

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

DE SAME ATSAMS

TOWN: WOLFEBORO

DATE: 07/16/2002

Sparse

Sparse

Scattered

Key	PLAN	ADIMDANCE		
Key	GENERIC COMMON		ABUNDANCE	
N	Nymphaea	White water lily	Sparse	
е	Elodea nuttallii	Waterweed	Sparse	
M	Myriophyllum heterophyllum	Water milfoil	Sparse	
υ	Utricularia	Bladderwort	Sparse	
а	Potamogeton amplifolius	Bass weed	Sparse	
b	Scirpus	Bulrush	Sparse	
W	Potamogeton	Pondweed	Sparse	
R	Potamogeton robbinsii	Robbins pondweed	Sparse	
S	Sparganium	Bur reed	Sparse	
E	Eriocaulon septangulare	Pipewort	Sparse	
Y	Nuphar	Yellow water lily	Sparse	
G	Gramineae	Grass family	Sparse	
T.	Typha	Cattail	Sparse	

Three-way sedge

Filamentous green algae

Pickerelweed

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

Dulichium arundinaceum

Pontederia cordata

Chlorophyceae

LAKE: CRESCENT LAKE

d

P

f

- 1. Northern cove was separated from the main body of the lake by a railroad bed and was not sampled.
- 2. Two beaches were present at the southern end.